

App. No. 10/611,437
Amendment Dated: March 20, 2007
Reply to Office Action of December 20, 2006

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REMARKS/ARGUMENTS

The Office Action mailed December 20, 2006 rejected claims 1-24. Claims 1, 13, 18 and 19 have been amended. No new matter has been added. In view of the following amendments and remarks, reconsideration and allowance of all pending claims are respectfully requested.

Claim Rejections

Claims 1-24 were rejected under 35 U.S.C. 101. In response, the Independent Claims have been amended. The Applicants respectfully request the 35 U.S.C. 101 rejections be withdrawn.

Claims 1-3, and 5-24 were rejected under 35 U.S.C. 102(b) as being clearly anticipated by Forecast et al. "Dynamic Modeling for Resource Allocation in a File Server", U.S. Patent No. 6,230,200 (hereinafter Forecast). The Applicants present the following for consideration.

With regard to Claim 1, the Office Action states that Forecast teaches "a server component configured to receive from a client information that indicates the client needs additional resources to perform a transaction, the server component being further configured to determine if allocating to the client the additional resources puts the server component in a resource constrained situation, and if so, to rebalance resources currently allocated to a plurality of existing clients. (Abstract. Column 6, Lines 15-30. Column 13, Line 15- Column 14, Line 30. Column 64)." The Office Action also relies on the same sections of Forecast in rejecting Independent Claims 13, 18 and 19. The Applicants submit that each of these claims include different recitations and respectfully request the Examiner to more specifically point out where

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each of the recitations are discussed within the reference should the Examiner not agree with the arguments presented herein. In order to further the prosecution of this matter, the Applicants have amended the Independent Claims to more clearly define the invention.

As amended, Claim 1 recites in part "wherein each of the clients maintains information about the state of its allocated resources and pending transactions including a current number of outstanding transaction requests and a maximum number of transactions available." Among other differences, Forecast does not teach that a client and the server each maintain information about the allocated resources.

In contrast to the above recitation, Forecast teaches that the server maintains a dynamic model in its memory that maintains information about the allocations of current resources. In the Abstract, Forecast states that "the dynamic model is a directed acyclic graph in which nodes represent the data handling components and edges represent data stream paths. Each node has a list of resources and current allocations of the resources. ... The controller of the file server has programs for automatically creating the dynamic model, modifying the dynamic model in response to component changes such as component failures, enforcing a scheduling and admissions policy by allocating resources for a path for a data stream during a search through the dynamic model in response to a client request for data access, de-allocating resources in response to an end-of-stream condition, and balancing allocations of resources to data streams in order to free resources to allocate a path for a requested data stream." Col. 6, lines 15-30 of Forecast discusses selecting servers in response to the "desired performance and capacity characteristics, such as the number of concurrent users to be serviced, the number of independent multi-media

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programs to be accessed concurrently, and the desired latency of access to the multi-media programs." Col. 13, line 15 – Col. 14, line 30 of Forecast teaches the scheduling of tasks as well as an admission control policy. Column 64 of Forecast shows pseudo code for allocating a path through the directed acyclic graph from the source to the destination with a specified bandwidth. These recitations in Forecast all teach that a server maintains the information that is used in allocating resources. Forecast does not teach that the client and the server maintain information about the current allocations. Since Forecast does not teach that the clients maintain a current number of outstanding transaction requests and a maximum number of transactions available, Claim 1 is proposed to be allowable.

Claim 13 as amended recites in part "wherein the server receives a transaction request message from the client; and wherein the server rebalances resources when the transaction request places the server in a resource constrained situation" and teaches data stores that include: a credits used field, a credit limit field, a pending count field and an open files field. Claim 18 as amended recites in part "a server component configured to: receive information from a client that indicates the client needs additional resources to perform a transaction; and to rebalance resources currently allocated to the client; wherein the client maintains information about the state of its allocated resources and pending transactions within a data structure, comprising: a credits used field ... a credit limit field ... a pending count field .. and a pending queue field." In addition to the arguments presented above, Forecast does not illustrate the client maintaining the above fields. Claim 19 as amended recites in part "computing a total number of client connections, each client connection being associated with a client connected to a server, each client having a credit limit that identifies a number of resources that are allocated to the client;

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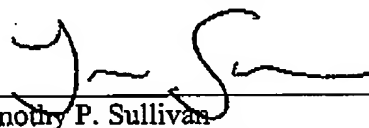
wherein the client maintains information about the state of its allocated resources including a current number of outstanding credits used and a maximum number of credits available." Claims 13, 18 and 19 are proposed to be allowable for at least the above reasons. Claims 2-12, 14-17 and 20- 24 are proposed to be allowable as they depend from valid base claims.

Conclusion

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

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